



# J&L Garden Center

The All Season Gift  
and Garden Center

620 North 500 West Bountiful, Utah 292-0421

The Gardening Newsletter

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## Winter Gardening -Houseplant TLC

Just because winter is here doesn't mean you have to stop gardening. Now's the time to give your houseplants a little extra attention, some TLC.

**Sunlight** - Light patterns change with each season. Leaves falling from the trees and the natural shift of the earth can affect the way the sun fills up a room. So, as the seasons change, you need to make sure your houseplants continue to receive a sufficient amount of sunlight.

If you have a plant placed on a windowsill that was shady in the summer but is now sunny since the leaves fell, you may have to move it. Watch for bleached areas on the leaves - that means your plant is getting too much light. On the other hand, if you see thin, leggy growth, that means your plant isn't getting enough light.

**Temperature** - Avoid placing plants near direct sources of hot or cold drafts. A sudden change of temperature from doors, windows, heat ducts, fireplaces or even TVs, can hurt houseplants. If your plants have wilting or brown-tipped leaves, there may be a temperature problem.

**Watering** - Over watering is a common problem with houseplants. Be sure to water each plant according to its needs rather than your schedule. Too much water encourages root rot which can cause lower leaves to turn yellow then die, among other problems.

**Fertilizing** - While a plant is actively growing during the summer season you may need to fertilize your plants every week or two. As your houseplant's growth slows in winter, cut fertilizing down to once a month.



## J&L's Christmas Open House

November 21, 22, and 23

J&L's annual **Christmas Decorating Open House** will be held from November 21 through November 23 from 9:00am to 6:00 pm. We will have demonstration tables running all three days which will have 'do-it-yourself' decorating hints. Listed below are some of the day-long demonstrations you will be able to see. Be sure and bring your J&L Gardening Coupon during the open house to receive your special store-wide discount.

**Bow Tying** - Learn how to tie many different types of bows. You can use these bow-tying skills year round. We will also have a few gift wrapping ideas to complement your bow tying efforts.

**Lighting your Christmas Tree** - Are putting lights on your



Christmas Tree a hassle? Let us show you how the professionals put lights on trees and learn a technique to hide the cords.

**Bulb Potting Table** - Come and plant your *Amaryllis Bulb*, *Paperwhite Bulbs*, or other *Forcing Bulbs*. We will furnish the soil and fertilizer, you will need to provide the bulbs and pots. Learn the basics of caring for your Amaryllis and other bulbs during and after they finish blooming.

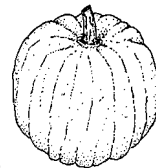
**Mistletoe Table** - Take the opportunity to create an old fashioned kissing ball for your home.

**Children's Bird Feed Table** - Have your children make a Christmas Treat for the birds in your yard. Once they learn how they can make more bird feeding decorations for the rest of their friends, and have a learning experience with the birds.

**Fresh Garlands and Wreaths** - Learn how to decorate your own garlands and wreaths.

## Pumpkin Contest

We would like to congratulate all the pumpkin growers this year. We had 91 entrants and a total weight of 9700 lbs of pumpkins entered into our contest this year. The biggest pumpkin was grown by Bruce Orchard. It weighed 583 pounds. He won our contest last year with a 775 pound pumpkin, which at the time, was the state record. This year a new state record was set at Thanksgiving Point, about 800 pounds. The record in the United States is now over 1,300 pounds.



It is good to see how much larger the pumpkins are growing each year. I compiled a list of the weights from our past pumpkin contest winners. Our pumpkin contest started in 1979 with the grand prize pumpkin weighing 125 lbs.

1986	226 lb	1988	286 lb	1989	300 lb	1991	190 lb
1992	452 lb	1993	396 lb	1994	388 lb	1995	489 lb
1996	400 lb	1997	464 lb	1998	548 lb	1999	250 lb
2000	633 lb	2001	775 lb	2002	583 lb		

## Amaryllis Bulb Care

Amaryllis are one of the popular winter blooming flowers. They are very striking and colorful. Amaryllis bulbs are extremely easy to grow, even for people that normally kill their houseplants.

Amaryllis bulbs make the perfect gift to help keep your family gardeners busy during the winter. They also make great gifts for friends and neighbors. Amaryllis bulbs are easy to take care of and you can almost watch them grow. With the proper care you can have your amaryllis bulb bloom year after year.

Amaryllis are available in many different colors ranging from white to pink to red. **Red Lion** and **Orange Sovereign**



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are two of our most popular varieties but we also have 12 other varieties to choose from. Amaryllis bulbs are available in different bulb sizes ranging from 26cm to 40cm size. The number of blossom stems and blossoms will vary with each amaryllis bulb, but you can expect more blossoms with bigger bulbs. One or two blossom stems are common on the small (28cm) size bulbs while three or four blossom stems are usual on the medium size (34cm) and four or five blossom stems are possible on the larger size (40cm) bulbs. **The blossoms will not be any larger on bigger bulbs, you will just have more of them.**

Amaryllis normally bloom in the spring, but the bulbs have been stored in cool temperatures of 55 degrees Fahrenheit for several weeks. The blooming timetable of the amaryllis bulbs were set ahead so they will be in full bloom this winter. Amaryllis bulbs are sometimes unpredictable. The bulbs may start growing immediately or the bulbs may wait several weeks to start growing. Once the bulb starts growing it usually takes four to six weeks for the blossoms to appear. After your blossoms have faded don't be too surprised if another blossom stem appears later in the spring or summer.

Water the Amaryllis bulb sparingly at first. Do not let the soil dry out but do not water it much until the bulb begins to grow. As the blossom stem develops, the bulb needs more water. As the flowers begin to appear, the plant needs even more water. Water is most important during its actual blooming period. Do not let your amaryllis bulb dry out while it is blooming or the blossoms will not last long. Continue watering your amaryllis bulb after it finishes blooming, throughout the growing season, just as you would water any houseplant. Fertilize regularly with **Fertilome Blooming and Rooting Fertilizer**.



Amaryllis grows fast. Sometimes it seems as though you can sit back and actually watch it grow. When amaryllis blossoms open, the spectacular flowers will last for two or three weeks. Cooler temperatures during this period will help the blossoms last even longer. When the blossoms fade, cut the blossom stem off close to the bulb. Don't cut off any leaf stems, just remove the blossom stem. Another blossom stem may begin to form immediately or within a few weeks. We have an Amaryllis Care sheet available, stop by and pick one up.

## Christmas Tree Care

Fresh cut Christmas Trees are a common holiday tradition. With the proper care they can stay fresh and be safe through Christmas, however, you need to remember that a **Christmas tree can always be a fire hazard.**



**Always put your tree in a water stand.** Be sure to cut off at least one inch of the trunk and put it in water within 10 minutes, or you will have to make another cut.

**Never let the water stand run out of water.** Check the stand daily. The tree will use more water when you first bring it in the house than it will use a week later. A tree can use up to a gallon of water per day. If the water stand runs out of water you will need to make another 1" cut before the tree will absorb water again.

**Spray your tree with Wilt Prufe.** This spray prevents moisture loss from the needles. Wilt Prufe will help your tree stay fresher longer. It is a nontoxic, odorless spray that really makes a difference.

**Do not put your tree near a fireplace or in front of a furnace vent.** Do not even put a Christmas tree in the same room with a fire; a small fire in the fireplace dries trees out fast. Try to keep the tree as cool as possible.

**Always use miniature lights; not C7 or C9 lights.**

**Spray your tree with Fire Retardant.**

Thirty years ago, a Christmas tree was traditionally set up a week before Christmas and then taken down right after Christmas Day. Now, Christmas trees are sometimes set up three or four weeks before Christmas and left standing until after New Year's Day. If you like your Christmas Tree set up for the entire holiday season, you may consider buying a **permanent, Artificial Christmas Tree**; they don't dry out. Buy a fresh-cut Christmas tree or a Potted Christmas tree for another room in the house, for a shorter period of time.

## Potted Christmas Tree Care

Many gardeners buy a potted spruce or pine tree, use it for their Christmas Tree, and then plant it in the yard after Christmas. As long as you follow a few simple guidelines you can have a successful experience with a **potted Christmas Tree**.



1. Do not keep a potted tree in the house more than 10 to 14 days. A tree may start breaking dormancy or start growing when it is kept warm.

2. Water your tree regularly while inside the house and water it thoroughly when you take it back outside. Do not let the root-ball dry out.

3. Spray your tree with **Wilt Prufe** to help prevent moisture loss. Spray the tree again just before you put it back outside.

4. Put your tree in a protected area when you take it back outside. The tree may have started to grow so it needs to be climatized before putting it directly in the cold.

**By following these simple guidelines you can have a healthy tree to plant after Christmas.**

## Winter Care Of Houseplants

Some people talk to their plants. Other people sing to their plants. Some people think their plants will cringe if they are scolded. While there is no evidence that house plants actually respond to these types of stimulations, houseplants will try to communicate with you and tell you if they are not feeling well. The leaves may droop, spots may appear, growth may stop. One symptom may mean the plant is not getting enough light. Another symptom may mean the plant is getting too much water. A third symptom may mean an insect or disease is bothering the plant. A quick, accurate diagnosis is half the battle in controlling the problem before it gets out of hand or spreads to surrounding plants. After the diagnosis, cure the problem don't just try to fix the symptoms.



The biggest problem we see with houseplants is that people tend to 'kill their plants with kindness', or they 'baby their plants to death'. Plants do not grow as fast during the winter so it is very easy to give them too much water or too much fertilizer. A general rule of thumb is to reduce the fertilizer by half and the water by a third. Each house is a little different because of light and room temperature. Too much water is the number one cause

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of death in houseplants. A moisture meter might be just the thing you need to help you determine just how much water is right for each plant.

## If a Houseplant could speak

A plant can't speak, but luckily you can usually tell what's ailing it by looking for a few warning signs. And signs that a plant is ready for repotting are some of the easiest to recognize. When your houseplant wilts too quickly after being watered, this is a good indication that it needs to be repotted. Gently lift the plant from the pot. Are the roots encircling the inside of the container? If so, they're telling you it's time to repot.



Rootbound plants need more water, more often because there isn't as much soil, compared to roots, to maintain the needed moisture. And if you let it go for too long, a big, fat root system may even start to strangle itself.

Although this symptom may be the most common sign that a plant needs repotting, each plant tells you it's time in its own way. Some plants, with extensive roots, may naturally send their roots riding up over the soil. Others may begin to yellow or die from the center, especially in spring. Sometimes you just have to make a judgement call. Take a step back and look at your plant. Does the foliage look overly large in proportion to the pot? But remember - some plants actually prefer being rootbound. African Violets, for example, will bloom best in small pots.

How often should you plan to repot? A good rule of thumb is every year. And sometimes, when a plant's suffering for no apparent reason, repotting helps, even if it's not rootbound. In this case, you don't need to move the plant to a larger container. It may benefit from a simple change of soil to freshen up the nutrient supply and improve the drainage.

Since different potting soils absorb water slightly differently, try to repot with the same kind of potting mix that the plant has already been growing in. Of course, if you're unhappy with the soil your plant is in, this is a good time to brush off the bad soil and start over.

Certain plants, such as African violets, orchids, and cacti, require their own specially formulated potting mixes. But with most other houseplants, it's more a matter of personal preference. **Black Gold All Purpose Potting Soil** is an excellent soil for most houseplants in your home.

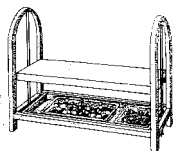


If a plant's health is in danger you can repot it almost any time of year. But if you're simply doing routine maintenance, spring is best. This is when plants are entering an active growth phase, so they'll readjust and begin to grow new roots quickly.

Once you've examined your plants and decided that repotting is just what the plant needs, gather up a new container; your potting mix, a watering can, a small trowel, and you're ready to begin. Happy repotting!

## Indoor Plant Lights

The gardening season is far too short for many gardeners. By using indoor plant lights, the gardening season can continue despite the weather conditions or the light limitations. You can use plant lights to start seedlings and cuttings, to overwinter tender plants, or to grow a special collection of plants such as succulents, orchids, or African Violets.



The basic requirements for indoor plant lighting usually include fluorescent light tubes; although incandescent light bulbs are better than nothing at all. Always buy full-spectrum light bulbs when possible. These tubes are more expensive than the common fluorescent tubes but they have the full complement of light rays that plants utilize during their growth cycle. You can achieve a similar effect by using one cool-light and one warm-light (day-light) tube in your fixture.

You can buy pre-built light carts. There are many styles to choose from ranging from table top fixtures to moveable carts on wheels. You can also build your own light cart to meet your specific needs. Be sure you can adjust your light fixtures whether you buy a pre-built cart or build your own. You will need to be able to change the light placement for different kinds of plants.

You must consider the light requirements of your plants to determine the correct light placement. The closer plants are to the light source the higher the intensity of the light they receive. Seedlings and other plants with high light-intensity needs, such as blooming plants and cacti, need the light to be within four to six inches of the leaves. Foliage plants, tolerant of lower light levels, will tolerate the light being a foot or more away from the leaves and still grow well.

Wherever you choose to place your plant lights, make certain the air temperature is suitable for the plants you're cultivating. It would be futile to grow tropical orchids, which like warmth, in a cold basement even with lights. Annual seedlings may germinate more rapidly in a warm environment, but their growth will be stockier and healthier if temperature is kept cooler after germination.

Since plants require a period of darkness for good health it's wise to put your lights on timers, otherwise you will forget to turn them on and off as needed. **Plants need fourteen to sixteen hours of light and they need eight hours of darkness.**

## Winter Lawn Care

Lawns continue to grow during the winter, except during the extreme cold weather. The better your lawn grows in the fall and winter, the better it will look early in the spring. Fertilize your lawn now with **J&L Fall and Winter Lawn Fertilizer**, if you haven't already fertilized this fall.



**"Don't Leave The Leaves."** Rake all the leaves from your lawn. Try to remove the leaves within three to four days after they drop. Some trees drop their leaves all at once while other trees may drop their leaves slowly all winter: sycamore trees, oak trees, and willow trees, are probably the worst at dropping their leaves. Leaves left on the lawn may cause fungus or mold problems in the lawn that are much easier prevented in the fall than cured in the spring.

Mow your lawn short the last mowing of the fall. By cutting the grass a little shorter in the fall you reduce the chance of it laying down and creating a snow-mold problem during the winter. Do not cut your lawn short until the last time you mow it for the year.

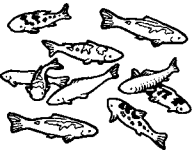


## Winter Pond Care

During the freezing winter weather fish may die in a garden pond if a few simple precautions are not made. Fish do not die simply because a pond freezes over, however, it is a good

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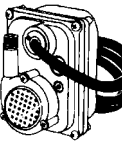
idea to prevent the surface from freezing solid. A solid layer of ice prevents the exchange of gases from the water to the air. Fish can die from the lack of oxygen if the pond remains frozen too long. Fish can also die from the build up of toxic gases in the water. Organic material on the bottom of the pond (leaves, fish waste, etc.) decomposes during the winter, producing toxic gases. If these gases cannot escape into the air the fish will die.



One of the best ways to prevent the build up of these toxic gases is to eliminate the source.

1. Cover your pond with a net in the fall. Be sure to clean the net often to remove the leaves.
2. Skim the pond regularly to remove all the leaves and debris you can.
3. Vacuum the bottom of your pond regularly during the fall to remove any build up that might accumulate. You can also vacuum the pond during the winter if needed.
4. Use a sludge removing chemical early in the fall to remove as much of the bottom sludge before the cold weather arrives.
5. Stop feeding your fish as soon as the water temperature drops below 50 degrees.

Fish don't mind a frozen top layer, as long as there's nothing rotting on the bottom layer to poison them. However, just to be safe, try to keep the surface from freezing solid. Use an electric pond de-icer to keep a small opening in the ice or run a small water pump to circulate the water near the surface.



If your pond does freeze solid do not just knock a hole in the ice. The concussion caused by the hammering may injure your fish. Broken shards of ice are also dangerous to your fish. Set a hot pan of water on the ice surface to slowly melt a hole in the ice.

During freezing weather ice layers can exert tremendous pressure on the sides of your pond. This pressure can damage or break your liner. To prevent damage from this ice pressure try floating a rubber ball or a log in the pond to absorb some of the pressure.

## Bulb Forcing

Bulb forcing is not as simple as tossing a bag of bulbs in the refrigerator for a couple of weeks, pulling them out, potting them, and watching them bloom. However, paperwhites are practically foolproof and don't require much preparation or care. Paperwhites bloom six to eight weeks after planting - without much care.



If you would like to attempt to force other types of bulbs such as tulips, daffodils, or hyacinths, you will need to take a little more time and care. A rule of thumb is it takes eight weeks of cool weather to get the bulb ready to grow and its take another 3 to 4 weeks for the blossoms to appear; for a total of about 12 weeks.

We started forcing a few hyacinth bulbs in September. They are growing in **Hyacinth Jars**. You can see the roots and watch them grow. They make great gifts and they are fun to watch grow and bloom. They won't be blooming by Christmas but they will bloom in January or February.

If you are interested in more information about forcing bulbs be sure and stop by our **Bulb Demonstration** table during our Christmas Open House. You can also request a copy of our Bulb Forcing Handout for additional tips.

## Salt or Ice Melters?

**Do not use fertilizer, salt, or any ice melter on concrete less than 1 year old. Use sand, kitty litter, or sawdust to control ice on new concrete.**



De-icing salts are a vital part of winter road maintenance, but they can be harmful to most trees and shrubs along the roadside or driveway. Unfortunately, we have no control over the amount of salt used on the streets or how much salt gets plowed onto the parkstrip. The best thing we can do is choose the right type of plant to use along the roadway. Some plants will handle the salt better than others.

We can control how much salt or ice melter that gets used on our sidewalks and driveways. All plants are affected by salt but some plants (especially tender plants) are more sensitive to salt damage than others. Salt is water soluble and salt damage can be minimized in the spring by flushing the salt away. Applying 6 inches of water will flush about half of the salt away. Applying 12 inches of water will flush about 4/5 of the salt and 24 inches of water will flush 9/10 of the salt away. Gypsum will also help minimize salt damage. The calcium in gypsum replaces the sodium (from the salt) in the soil, making the sodium easier to flush away.

The most common ice melter used (the type used on most roads) is sodium chloride (table salt, rock salt, water softener salt). This salt is very effective and inexpensive. Sodium chloride will melt ice even on the coldest days of winter. The sodium in this salt is harmful to plants and can also damage the soil structure. Sodium will damage concrete, if used excessively. Just look at many of the sidewalks and porches in your neighborhood to see the damage caused by salt.

**Ice Fighter Plus**, an excellent alternative to plain rock salt, contains sodium chloride. However, Morgro Chemical Company has mixed a patented polymer coating, **Propolyice**, with the salt that prevents damage to concrete. **Propolyice** inhibits water from penetrating into the concrete. By keeping the water out of concrete, the freezing-thawing damage caused by salt is reduced. If used correctly, this ice melter will not harm concrete nor will it kill most plants.

The second most common ice melter used is potassium chloride. This type of salt is not as effective melting ice as rock salt, but it is safer to plants and to concrete. This type of salt will melt ice until the temperature gets extremely cold. This type of salt is used in several ice melters including **Sno Plow Ice Melter**. Snow Plow ice melter is not as effective as Ice Fighter Plus but it is a lot less expensive. It is much safer to use than plain rock salt.



Another category of ice melters is garden fertilizers. **Urea** is probably the safest garden fertilizer to use to melt ice. It does not damage concrete, in fact, the airport often uses Urea on its runways because it does not harm the concrete or the airplanes. Urea has a drawback though, it will only melt ice when the temperature is above 11 degrees Fahrenheit. Below this temperature Urea will not melt any ice. **Ammonium Sulphate** is another common fertilizer used as an ice melter. This fertilizer

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melts ice until the temperature is -25 degrees Fahrenheit. Ammonium sulphate is very harmful to concrete because the sulphur reacts with concrete to create a mild acid. Ammonium sulphate damages concrete worse than table salt does, so be careful applying fertilizer to melt ice.

## Wild Birds

If you are one of the many bird feeding enthusiasts in this area be sure to take time to learn more about the birds you are feeding. Feed your birds high quality food and food that is also beneficial to them. Birds love sunflower seeds; they are a 'Bird's Dessert', but sunflower seeds are not always the best food to feed them.

Birds will scatter the seed in your feeder just to get to the sunflower seeds, wasting most of the other food in the feeder. You may want to separate the sunflower seeds from the other wild bird seed. Put out one feeder of wild bird seed and one feeder with sunflower seeds. You will have less waste from your feeder and you can control when you give the birds dessert. Feed your birds suet or peanut butter once in a while, they love it and it is good for them. Moldy seed and bread are not beneficial to birds. It is best not to feed the birds with bad food or with rancid seed.

There is little or no regulation with regard to wild bird food products. This makes it difficult to know exactly what the bag of bird food contains. Are you purchasing the cheaper milo or millet seed or the more expensive vitamin-enriched seed. We carry the **Wild Delight** brand of wild bird food. This company manufactures several different mixes of high quality seed. Each of their mixes contains vitamin enriched seed. Some of their mixes also contain dried fruit and nuts. This brand of wild bird food is well known in the mid-west and is becoming better known in the west. We have a fact filled handout about the products available along with some excellent bird feeding tips. Please stop by and pick one up.



**Wild  
Delight.**

## Christmas Cactus

Christmas Cactus can add a little interest and variety to your houseplant collection. They are different than most houseplants and are very easy to take care of. Christmas Cactus produce an abundance of flowers and can flower six weeks and longer. Unlike regular cactus plants, Christmas Cactus prefer humid, moist conditions with only moderate sunlight. Christmas Cactus grow naturally in the tropical rain forests; not in the hot, dry deserts.

The Christmas Cactus belongs to the plant genus **Schlumbergera**. They were previously classified in the plant genus **Zygocactus**. Even though the classification has been changed, most people still refer to the Christmas Cactus as a Zygocactus. Originally, Christmas Cactus were only available in red. Through years of plant breeding, they are now available in several different shades of red, white, pink, purple, yellow, and salmon. We have a Christmas Cactus care sheet giving some excellent tips to help your Christmas Cactus grow and bloom properly. Please stop by to pick one up.



## How Plants Avoid Freeze Stress

Have you ever wondered how some trees and shrubs can

survive minus 40 degree F and still come through in the spring with a flush of green growth while other plants die at 32 degree F? *Mother Nature* has a well designed plan for everything, including the winter protection of trees and shrubs from *Jack Frost*.



Our native trees and shrubs are acclimatized and synchronized to our local, natural environment. They respond to day length and temperature to make them go dormant and to break dormancy. A tree from Oregon or Southern California may not survive our climate because it simply does not synchronize itself with our local growing conditions or seasons. Plants growing in different areas are governed by the day length and the temperature of that area.

So, if we were to plant the same species of tree that grows naturally in both Southern California and in Utah, a tree from California may not survive in our much colder climate if it doesn't adapt quickly enough. This is the direct result of the California tree not being able to synchronize itself to our early autumn conditions. The tree might not be able to develop hardy dormant buds and frost resistant plant tissue before the onset of sub-zero temperatures. The tree would die, or be injured, because of **freezing stress**. Freezing stress is determined by the location of where the ice crystals form within the plant. If the formation of ice occurs within a plant cell, that cell will inevitably die. If enough cells within the plant die, the plant may suffer or die too.

**Example:** A professional chef tears lettuce apart instead of slicing it with a knife. When cut by a knife, the damaged lettuce cells will turn brown almost instantly. The lettuce leaves do not turn brown when they are torn apart because the plant tissue separates around the edges of the plant cells without damaging the delicate cell membranes.

Our native species of trees and shrubs prepare themselves for sub-zero temperatures in one of two ways. These ways are either by **freeze-induced cell dehydration** or by **supercooling cellular water** below freezing temperatures.

To avoid ice formation inside the cell, most cold hardy tree and shrub species rely on **freeze-induced cell dehydration**. These species permit ice to form outside of the cells; between the cells. The water starts to freeze at temperatures just below 32 degrees F, forming ice crystals just outside the cell walls. Sugars and other organic molecules inside the cell help prevent ice from forming inside the cell as quickly as outside the cell in much the same way as salt in water slows salt water from freezing as quickly as regular water.

In comparison to water, ice is dry, so the humidity outside of the cell is lower than the humidity inside the cell. Water from inside the cell is then drawn out of the cell in an attempt to equalize humidity levels between the outside and inside of the cell. The dry ice draws water from the cell much like a dry paper towel absorbs water. As the temperature continues to drop, water is continually drawn out of the cell and freezes onto the dry ice crystals outside of the cell until there is almost no free water left within the cells. Without free water inside the plant cells, the plant can withstand some pretty cold weather.

However, formation of ice can occur inside the cells of these plants if the winter weather raises temperatures above 32 degrees F, allowing water to re-enter the cell. A quick, sudden temperature drop of more than 2 degrees per hour can result in ice formation within the cell because water may not be able to

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leave the cell fast enough. These cells will die and may result in injury or death to the plant even though that plant would have otherwise survived our cold winter weather.

A second way plants withstand extreme winter temperatures is by preventing the formation of ice in a cell by **super-cooling the water**. In order for an ice crystal to form, it must have a speck of dust or other microscopic impurity in the water to form that *first* ice crystal. Once the first ice crystal has formed, other water molecules lock onto it causing rapid growth of ice crystals. When there is absolutely no impurities in water, water can be cooled to -40 degrees F. without freezing. This is known as supercooling of water. Some tree and shrub species have absolutely pure water within their cells and avoid winter damage by super cooling their water. Needless to say, if the temperature should drop lower than -40 degrees F, ice formation would occur within the plant cells and the cells would die, resulting in frost damage or death to those plants.

## Protect Your Tender Plants

Dry winters cause more problems for plants than years of heavy snow. Snow is the best natural insulator that plants have. Snow protects plants from extreme temperatures (both heat and cold). Snow also helps keep moisture in the soil for plants to use during the winter. If mother nature doesn't provide the necessary insulation, you will need to provide it - to protect your tender plants.



Plants that do not lose their leaves in the winter (evergreens) use quite a bit of moisture each winter. Broad-leaved evergreens (**Rhododendron, laurel, oregon grape, etc.**) are most affected by moisture loss because of their large leaf surface. Junipers and pine trees may also suffer during long, dry periods but they are much more tolerant of drought. When the sun shines on a plant the leaf temperature can get as high as 70 degrees yet the root system remains frozen. As water evaporates from the leaf no water is able to replace it. The leaves may *'freeze dry'* which could kill the entire plant. **There are four things you can do to prevent this winter damage.**

(1) **Don't let the soil dry out.** Water your plants occasionally during the fall. Don't keep your plants wet, just keep them moist. A plant that freezes moist will be much healthier than a plant that freezes dry.

(2) **Put mulch around the base of your plants** to help insulate the soil from hard freezes. Mulch also helps keep moisture in the soil. Wait until the ground freezes to mulch plants with **Soil Pep**, leaves, or soil. You want the ground to actually freeze lightly to help the plants go dormant before you cover the ground with mulch. Do not use grass clippings because they may cause fungal or disease problems. Apply one or two inches around hardy plants and up to six to eight inches of mulch around your tender plants. Newly planted shrubs need more protection than your older shrubs.

(3) **Spray your plants with Wilt Prufe.** Wilt Prufe is an anti-desiccant; it seals moisture inside the plants and it stops evaporation from the leaves. Wilt prufe is not poisonous and will not harm animals. Spray Wilt Prufe when the temperature is above 40 degrees and will stay above freezing until the spray dries, usually one to two hours. Wilt Prufe is good to use on all



plants, especially on 'Broad-leaved Evergreens' and all newly planted shrubs. Wilt Prufe is also great to spray on your Christmas trees to prevent them from drying out so fast.

(4) **Wrap the trunks of young trees with Tree Wrap** to prevent sunscald and bark splitting. Sunscald and bark splitting are often caused by extreme winter weather; too hot, too cold, or extreme fluctuations in the temperatures. Newly planted trees, fruit trees and thin barked trees (locust, redbud, kwanzan cherry, etc) are especially prone to this type of damage during the winter. Many orchardists regularly spray the trunks of their trees with white paint (instead of wrapping them) in the fall to prevent this type of damage during the winter.

## Winter Chemical Storage

Your chemical storage area should be secure from unwanted visitors, both human and animals. Good lighting and ventilation are important to consider. Proper ventilation can prevent volatile chemicals from contaminating other materials in storage. Store flammable products outside living areas and away from ignition sources. Keep chemicals and fertilizers cool and dry. Extreme temperature variations can cause unwanted problems such as frozen, ruptured containers, or hot, volatile gases. Too much humidity or moisture may cause paper bags and metal containers to disintegrate prematurely. Do not store bags of fertilizer directly on the floor as it can absorb moisture. Wet fertilizer turns into hard bricks making it unusable.

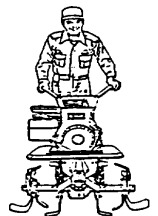


Store all chemicals in their original containers that have legible labels. Do not ever transfer chemicals into an empty food container. Do not use an empty pesticide container to store food or water, even if the container has been thoroughly washed. Do not store pesticides near food, medicine, or cleaning materials.

One way to minimize pesticide storage problems is to plan ahead and buy fertilizers and pesticides one season at a time. The small containers that seemed 'expensive' in the spring may actually be the 'best buy' in the fall.

## Store Tools Properly

You probably thought your gardening chores were behind you; not quite. Don't forget to tuck away your gardening tools for the winter. Too often we forget to prepare our tools and equipment for the winter. A little attention now will be rewarded with years of good service from your gardening tools.



Change the oil in all your power tools before storing them for winter. Scrape off all the matted grass or dirt to prevent rust from forming. Either drain all the gasoline from the tank or add a fuel stabilizer such as **Briggs & Strattons' Gas Additive** to keep the gas fresh and to keep the carburetor from plugging, especially in two cycle motors (weed eaters and chainsaws). This little step could save you a trip to the mechanic next spring. Lubricate all the moving parts and sharpen the blades.

Use your old lawnmower oil to clean and oil your shovels, rakes, hoes, loppers, and many other gardening tools. Fill a bucket with clean sand and put your old lawnmower oil in the sand. Once you get enough oil in the sand the sand does a great job of cleaning and oiling the tools. Just scrape off most of the

# J&L's Coupon of the Month

**J&L  
Open House  
Coupon  
20% OFF  
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*Three Days Only*

*Valid November 21, 22, 23, 2002 Only*

*Limit: One Purchase Only.*

*Does Not Apply to Gift Certificates.*

**Free One  
Poinsettia  
in a 4" pot.  
Choose  
from:  
Red, Pink, White**



*Valid November 29 to December 20, 2002 only*

*continued from page 6*

dirt and push your tool into the sand. After a day or two remove the tool, wipe off the sand and oil, and your tool will be ready for use or for winter storage.

Does your rake or hoe fall out of its handle socket while you are using it? This can be very frustrating when you are trying to do your yardwork. When a tool falls out of its handle it does not mean the tool is junk, broken, or that the tool needs to be replaced. It simply means the handle has dried out and the wood has shrunk inside the metal ferrule. You can make the wood swell again by soaking the handle in water. However, your handle will just dry out and the head will fall off again when the water evaporates. So, instead of soaking your tool in water, fill the metal ferrule with either linseed oil or motor oil (recycled lawnmower oil works great). Set the tool upright so the oil will soak into the wood instead of running all over the handle and floor. Keep adding oil in the ferrule as long as the wood will soak it up. You may need to add a little oil every week or two. The more oil the handle absorbs the better. The head will stay on its handle longer and your tools will not break as easy. A 'dried out' handle is much weaker than a handle soaked in oil.

Drain the water from your garden hoses and sprinklers and hang them up to dry before putting them away for storage. Hoses left outdoors during the winter are likely to crack and split, especially if they still have water inside.

## Poinsettia Care

The Poinsettia derives its name from Joel R. Poinsett, the American Ambassador to Mexico in 1851. He introduced the plant into the United States so that American people could enjoy its 'colorful loveliness' - flaming scarlet bracts sur-



rounding small yellow flowers that brilliantly contrast dark green leaves. The poinsettia is also known as the Eastern Flower, Lobster Flower, Mexican Flame Leaf, and Christmas Flower.

Poinsettias are perhaps the most popular house plants in the United States. Most everyone has at least one or two poinsettias in their home during the Christmas season. Unfortunately, most poinsettias get thrown away right after Christmas. Poinsettias will grow and stay pretty through April and May if they are properly cared for. They will also grow and bloom year after year, if you have the patience to take care of them.

Most people that throw their poinsettias away right after Christmas wonder why all the leaves turned yellow and fell off a week or two after they bought them. **Several conditions may cause poinsettias to drop their leaves, most of which can be prevented.**

**1. Poinsettias need plenty of light.** They have been grown in greenhouses under optimum conditions. Reducing the amount of light makes the plant drop some of its leaves.

**2. Poinsettias need plenty of fertilizer.** They have been fertilized every few weeks in the greenhouse so you need to keep it up. Fertilize your poinsettias every two weeks with **Blooming and Rooting Fertilizer** while they are blooming.

**3. Poinsettias need plenty of water,** but they do not like to stay wet all the time. Give your poinsettia plenty of water; enough to fill the saucer. Let your plant sit in water for 30 minutes then drain any excess water still in the saucer. Do not water your poinsettia again until the soil feels dry. The pretty foil pot cover acts like a saucer, be sure to drain excess water left in the pot cover after 30 minutes. Too much water will kill your plant as quickly as not enough water will.



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# The Gardening Newsletter

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**4. Poinsettias do not like drafts:** neither hot nor cold. Keep poinsettias away from doors and away from furnace vents.

We have a **Poinsettia Care Sheet** available to give you more information about growing and keeping your poinsettias looking good. Stop by and pick one up.

## Moths Flying All Over the House?

Small moths fluttering around the home are unwelcome visitors anytime of the year. They are often noticed in early winter, as the house is closed up and holiday baking materials, and wild bird seed, are on hand. These insects are Indianmeal moths, and they are often brought into the home with cereal and other grain products. Rice, oatmeal, cornmeal, pasta, cake mixes, granola, walnuts, pecans, and dates are among other food products infested by these insects. Dry dog and cat food can be another potential source for these insects.



Once in the home, Indianmeal moths may be noticed as either a very small moth or a small whitish 'worm' crawling up the wall or across the ceiling. Adult moths are only about 3/8 inch long and are brownish-gray, with a two-tone appearance to their wings. Adults do not feed, but they lay eggs in or near dried food. These eggs produce small whitish larva (caterpillars) with dark heads. The larvae spin silken webs over the surface of the infested food source.

When full-grown, larva migrate out of the food source and

often crawl across walls and ceilings, making their cocoons in cracks and crevices. They emerge in a few days as adult moths. The complete life cycle from egg to adult moth takes one to two months.

Proper food storage and sanitation is the best way to eliminate this pest. Thoroughly inspect all open, and unopened, dried food packages in the food cabinets. This insect has been known to chew through cardboard boxes and package linings. Discard, or prepare and use, any items showing signs of insects. Next, vacuum shelves and cracks or crevices in cabinets and storage areas. Dispose of the vacuumed material. Wash the areas with a mild disinfectant such as Clorox or Pinesol. You can also hang a few



**Pantry Pest Traps** in your food pantry to help trap the adult moths. In closets that you do not store open food you can spray the cracks and crevices with **Bioganic Crawling Insect Killer**. This spray is an organic product made from plant oils and leaves a pleasant clove-like odor.

Placing stored food into insect-proof containers, such as glass jars and plastic canisters with airtight seals, is a key to managing this insect and similar pests. Avoid purchasing crushed or damaged packages of cereal or grain products. Store all birdseed in airtight containers, in the freezer, or in the garage; not in the food closet. Even after going through all of these procedures, you may still see more moths around. But as long as they cannot get back into food sources, the problem should eventually go away.

## Fun Facts About Christmas Trees

As people are hustling and bustling through the holly day season, probably few take a moment to marvel over the history and life of a Christmas tree. These little tidbits might come in handy for small talk at your next party.

The first printed reference to Christmas trees appeared in Germany in 1531.

The decorated Christmas tree can be traced back to the ancient Romans who decorated trees with small pieces of metal during Saturnalia, a winter festival in honor of Saturnus, the god of agriculture.

Between 1887-1933 a fishing schooner called the 'Christmas Ship' would tie up at the Clark Street bridge and sell spruce trees from Michigan to Chicagoans.

In 1963, the National Christmas Tree was not lighted until December 22 because of a national 30-day period of mourning following the assassination of President Kennedy.

In 1979, the National Christmas Tree was not lighted except for the top ornament. This was done in honor of the American hostages in Iran.

Oregon produces the most real Christmas trees at 8.6 million in 1998.

Growing Christmas trees provides a habitat for wildlife. Recycled live trees have been used to make sand and soil erosion barriers, placed in ponds for fish shelter and make great winter protection for perennial flowers.

59 percent of real Christmas trees harvested are recycled in community programs.

Christmas trees take 7-10 years of managing insects and diseases, shearing and weathering all kinds of environmental problems to produce a saleable tree.

Christmas trees are grown in all 50 states including Hawaii and Alaska.

98 percent of all Christmas trees are grown on farms.

On average, over 2,000 Christmas trees are planted per acre. 2-3 seedlings are planted for every harvested Christmas tree.

32.4 million families purchased a real tree in 2000.

You should never burn your Christmas tree in the fireplace. It can contribute to creosote buildup.

Other types of trees such as cherry and hawthorns were used as Christmas trees in the past

Using small candles to light a Christmas tree dates back to the middle of the 17th century.

Thomas Edison's assistant, Edward Johnson, came up with the idea of electric lights for Christmas trees in 1882. Oh, if Ed could see them now! Christmas tree lights were first mass produced in 1890.

What Christmas tree decoration did the government ban at one time? Tinsel originally contained lead, now it's made of plastic.

Keep your tree well watered. In the first week, a tree in your home will consume as much as a quart of water per day.

## Winter Tree Care

Bark spilling is a fairly common problem on many trees in this area. Bark splitting is often caused by environmental or physical factors. Splits can occur on the trunk or in the branches. Newly planted trees, fruit trees and thin barked trees (locust, redbud, kwanzan cherry, etc. ) are especially prone to splitting bark. Bark splits are not always fatal to the tree although they can be an entry point for many disease organisms.

Bark splitting is usually caused by large temperature changes between day and night during the late winter and early spring. The frost freezes the water within the trunk causing a vertical split in the bark. Excessive fall growth is the major cause of this type of injury. Fertilizing trees late in the fall, or keeping trees too wet late in the fall may promote a late surge of growth that may actually harm the tree rather than benefit the tree. Nice warm November and December temperatures after a cold October may also create conditions that may cause the bark to split. The tree starts to go dormant then starts to grow again.

The best way to prevent splitting bark is to fertilize trees in the early spring instead of the fall. Keep trees moist until they drop their leaves then cut off the water, except on newly planted trees. You can also wrap the trunk of susceptible trees (especially young trees) with tree wrap or paint the trunk with white paint.

Sunscald is another type of injury that can kill a tree during the winter. This injury is also deadly to the thin barked and newly planted trees. Sunscald is caused by the same conditions that cause bark splitting. Too much water, too much fertilizer, warm weather in November and December make the trees especially susceptible to sunburn during the winter. The sun reflects off the snow and heats up the bark (similar to a skier getting sunburned). The bark freezes at night. These freeze / thaw cycles kill the bark and slowly kills the tree. Sunscald can also be caused by pruning a tree heavily, removing the shade many branches are used to.

Prevent sunscald by wrapping the trunk, painting the trunk white, and letting the tree go dormant. If you drive past a peach orchard during the winter you will notice all of the trunks have been painted white to prevent this type of injury.

If your trees have a split in the bark the best way the tree can recover and repair the damage is to make sure the wound has nice clean, smooth edges. Use a sharp knife and remove all loose bark. Do not make the wound worse than it is. Most tree experts do not recommend covering the wound with any type of paint or tar. They recommend leaving the wound open. A healthy tree should create a callus over the edges quickly and the tree will eventually cover the split. An unhealthy tree will struggle. It would be better to remove the unhealthy tree and start over than to try and save it.

# Indoor Insect Scouting

On a blustery, cold day in the middle of winter, insects seem scarce. But don't be fooled even though you might not see them, insects are all around you. They are overwintering, which refers to how an insect survives the winter months.

Just like many of you, insects don't like the cold, so they try hard to keep warm when temperatures drop. To survive the chilly days of winter, some insects lay eggs that will hatch in the warmth of spring, some migrate to areas with warmer temperatures, and still others find a hiding place and sleep through most of winter. Scientists call insects in this sleeping stage *dormant*. Would you like to search for some dormant insects?

You might find eggs, larvae, pupae, or adult insects overwintering in old tree stumps, in rotten bark, under fallen leaves, or right under the ground you walk on.

When you're finished looking for insects in the cold outdoors, you can go inside, drink some hot chocolate, and look for insects and arthropods right in your own house. Look in corners, house plants, stacks of old newspapers, recycling bins, piles of firewood, and cabinets, and you just might find a new roommate! Try not to be annoyed or embarrassed at these unwelcome tenants- they are only following their survival instincts to keep warm.

When the sun's warm rays stream into your house, you might see a *house spider* crawl out into the light. Usually these arthropods hide in corners and spin irregular webs- not graceful, beautiful ones like some other spiders- to catch any flies, moths, or mosquitoes that have invaded your home.

One of the insects a house or cobweb spider might feed on is the *common house fly*. The house fly is present at one time or another in nearly every home in the world. In the northern portions of the United States, house flies overwinter as larvae or pupae; however, in heated buildings some adults may survive and continue to breed slowly throughout the winter. This insect has one of the shortest life cycles among the insect world: its entire life lasts between 6 and 20 days.

House flies are generally day-active, prefer direct sunlight, and can take food only in the liquid state. To eat something solid, a house fly must first drench the morsel in its saliva or in its regurgitate stomach contents dissolve it. An interesting feat of the house fly is its ability to walk on ceilings without falling.

If you keep fruit in your kitchen, you have probably seen *fruit flies*, other unwelcome houseguests. Most species have attractive wings with bands or spots that form intricate patterns. These flies develop rapidly and can produce almost 25 generations a year. Each female fruit fly lays up to 100 eggs- half of which will hatch into males and half into females.

*Silverfish*, one of the few insects covered with scales, are also likely winter visitors. A uniform silvery or gray color, the silverfish prefers damp places such as basements and is generally less abundant in upper levels of buildings. When this scaly, wingless houseguest arrives, book bindings, papers, cards, and boxes are not safe--they all make appetizing meals for this creature.

Because of the frightful appearance of their pincer-like cerci- straight in the female and curved in the male- *earwigs* may unsettle homeowners when discovered indoors. Luckily these creatures live most of their lives outside. Earwigs overwinter as either eggs or adults, and the adults will dig as deep as six feet beneath the ground to avoid the cold winter tempera-

tures. If you find one in your home, it has probably come in search of moisture. Earwigs do not bite, but, if handled, might pinch with their cerci. Watch out! The larger males have can have a painful pinch.

Few insects have proved themselves more persistent unwanted houseguests than *ants*. Ants are social insects: they live in colonies (large groups) in the ground or in the foundations and walls of buildings. A colony contains numerous sterile female workers, a queen, and, during part of the year, a few males. The ants you see crawling around your house are female workers attending to the needs of the colony and the queen.

When an ant searches for food, it makes a trail for the other ants to follow by laying down a scent from its abdomen. That is why you usually see ants in a line- they are following the trail of the first ant.

During winter or at any time of the year, and no matter how hard people would like to, we can't forget about *cockroaches*! No one likes to see these brown, shiny, flat-bodied creatures scurrying around the house, but you would need a lot of luck to eliminate them completely. Cockroaches boast a long and impressive history: they have been around for 350 million years and are among the earliest insects. But be glad the cockroach has changed since those times- 6 inches was a standard size for a prehistoric cockroach!

In the United states, five or six species of cockroach are common. They are mainly nocturnal, which means they are active at night, and they feed on a wide variety of plant and animal products. They prefer high temperatures and humidity, and they have a low tolerance for the cold- unfortunate for the humans who wind up acting as unwilling landlords to those cockroaches during the winter.

Now you know about a few of the insects that might join you during the cold days of winter. Sometimes we don't like the idea of insects sharing our space- especially if we find a small colony of ants in the kitchen!- but we have to realize insects always have been and probably always will be a part of our lives. And if you do find yourself face to face with some unwanted winter visitor, just help it along to its natural overwintering stage: catch it carefully in a jar and release it outside.